Model
NF10FX

Sales code:
105G6846

Compressor Data

Refrigerant(s)	**R134a / R513A**
Refr. charge - tech. limit	**460g / 16.23oz**
Weight	**10.50 kg / 23.15lbs**
Displacement	**10.09 cm3 / 0.62cu.in**
Compressors on pallet	**80**

General – Configurations With NF10FX

–	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motor configuration	CSIR	CSIR	CSIR	CSIR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/50 Hz	208-230 V/60 Hz	208-230 V/60 Hz
Number of phases	1	1	1	1
Voltage range	198-242 V	198-242 V	198-242 V	198-242 V
Approvals	UL, VDE, CCC, EAC	UL, VDE, CCC, EAC	UL, VDE, CCC, EAC	UL, VDE, CCC, EAC
Starting torque	HST	HST	HST	HST
Refrigerant	R134a	R513A	R134a	R513A
Application	LBP+MBP	LBP+MBP	LBP+MBP	LBP+MBP
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK

Application Notes

- Provision for PE Grounding is located at the PE Stamp on the compressor

Model
NF10FX

Sales code:
105G6846

Compressor Design

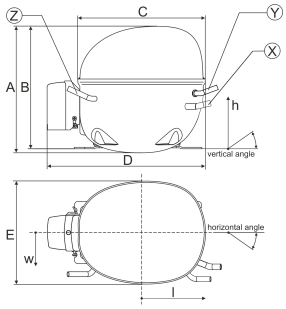
Oil type	**POE**	Winding resistance main	**4.6 Ohm**
Oil viscosity	**32cSt**	Winding resistance aux	**12.8 Ohm**
Oil quantity	**298 / 10.08fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,360 cm3 / 79.80fl.oz**	Max. discharge temp.	**110°C / 230°F**
Motor protection	**external**		

Compressor Dimensions

Housing

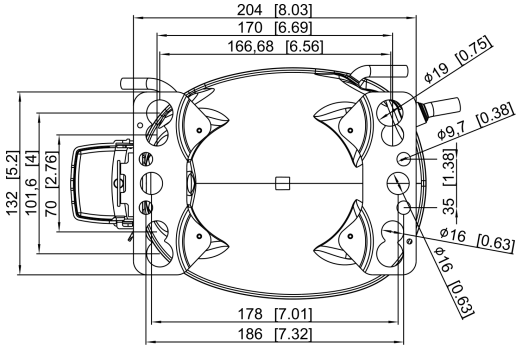
A Height	**203mm / 7.99in**
B Height	**197mm / 7.76in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



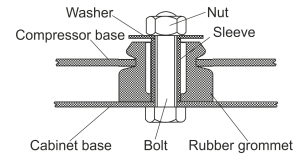
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	35°	155°
Position l/h/w [mm]	125.5/75.5/78 / 4.94/2.97/3.07in	133/102.5/54 / 5.24/4.04/2.13in	-107/93.5/72 / -4.21/3.68/2.83in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

Mounting Accessories

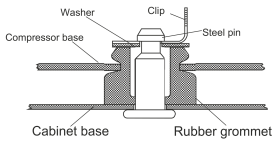


Dimensions in mm [in]

Bolt joint



Snap-on



	one comp.	multi pack
Bolt joint | M6 | ø16mm	118-1917	118-1918
Bolt joint | ø1/4" | ø16mm	118-1946	–
Bolt joint | ø1/4" | ø19mm	118-1949	–
Snap-on | ø7,3 | ø16mm	118-1947	118-1919

Model
NF10FX Configuration 1

Sales code:
105G6846

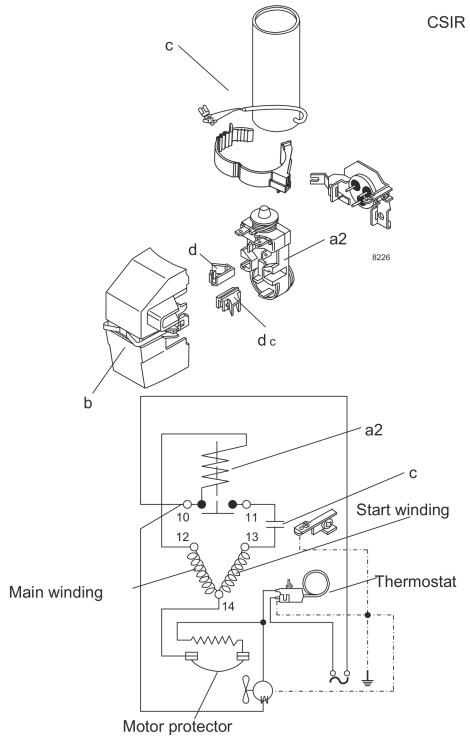
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R134a**
Application	**LBP+MBP**
Voltage range	**198-242 V**
Starting torque	**HST**
Approvals	**UL, VDE, CCC, EAC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**125 µF**
LRA (locked rotor amps / 4s/ U(N))	**20 A**
RLA (rated load amps / 1s/ U(N))	**3.7 A**
Cut in current (U(N))	**20 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
fan 1,5m/s

Electrical Accessories / Wiring Diagram



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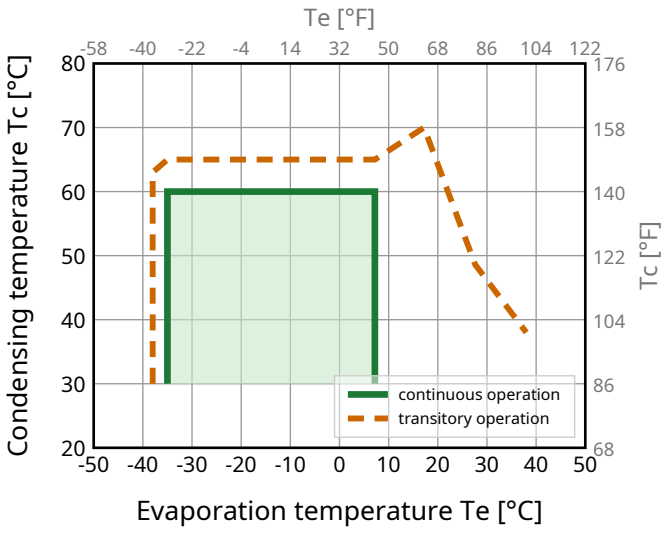
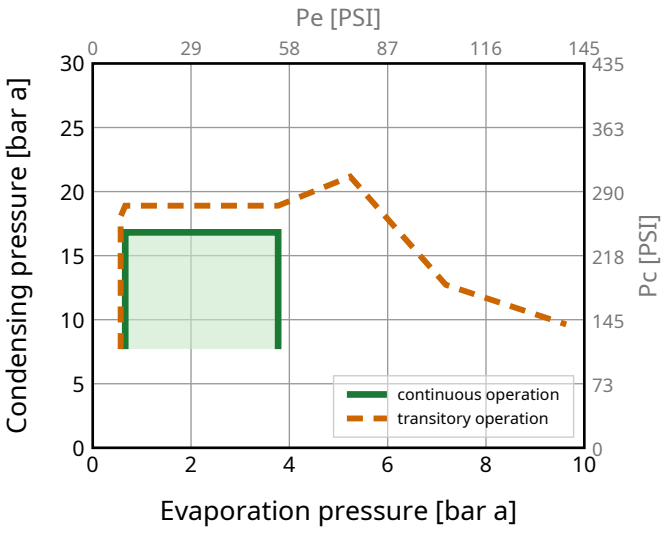
Components
a2 relay (protector: TI MRP56EN-6) 117U4139
c start capacitor 117U5018
b plastic cover + clamp 117U1021
d/dc cord relief 117U0349

Alternative components
a2 relay (protector: TI MRP56EN-6) 117U4139
d cord relief 117U0317

Operation Pressure Range





Model
NF10FX Configuration 1

Sales code:
105G6846

Standard Conditions

R134a, 220 V/50 Hz, CSIR, fan 1,5m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**267**	910	229	**0.94**	3.21	283	2.75	5.17	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**196**	670	169	**0.72**	2.47	271	2.73	4.68	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**138**	471	119	**0.66**	2.23	211	2.67	3.02	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**555**	1895	478	**1.42**	4.85	391	2.96	12.09	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**432**	1476	372	**1.17**	4.01	368	2.91	10.43	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**480**	1637	413	**1.34**	4.58	357	2.85	11.19	**EN12900 MBP**

Performance Tables

R134a, 220 V/50 Hz, CSIR, fan 1,5m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	**128**	438	110	**0.60**	2.05	214	2.67	2.77
-30	-22	**174**	594	150	**0.72**	2.46	242	2.70	3.76
-20	-4	**305**	1039	262	**1.02**	3.48	299	2.77	6.60
-10	14	**497**	1696	427	**1.39**	4.75	357	2.85	10.85
0	32	**764**	2607	657	**1.85**	6.30	414	2.96	16.86
7.2	45	**1010**	3446	869	**2.23**	7.62	452	3.05	22.50

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-35	-31	**104**	353	89	**0.49**	1.67	211	2.65	2.46
-30	-22	**144**	493	124	**0.60**	2.05	240	2.68	3.44
-20	-4	**261**	889	224	**0.86**	2.93	303	2.78	6.23
-10	14	**432**	1476	372	**1.17**	4.01	368	2.91	10.43
0	32	**673**	2296	579	**1.55**	5.29	434	3.07	16.41
7.2	45	**895**	3055	770	**1.86**	6.36	481	3.21	22.07

Model
NF10FX Configuration 2

Sales code:
105G6846

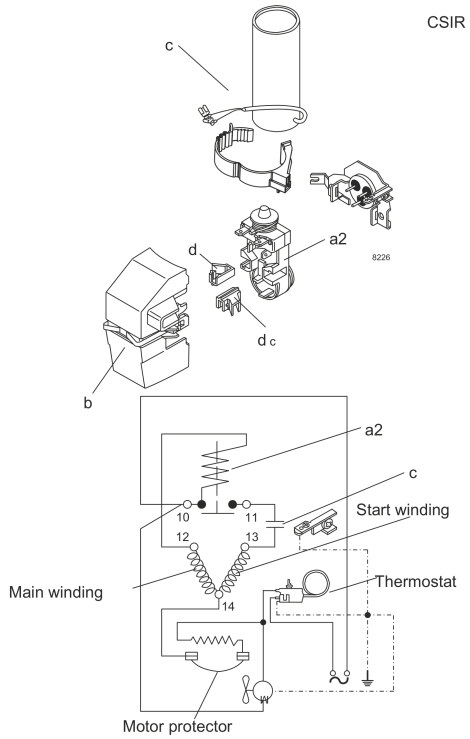
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R513A**
Application	**LBP+MBP**
Voltage range	**198-242 V**
Starting torque	**HST**
Approvals	**UL, VDE, CCC, EAC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**125 µF**
LRA (locked rotor amps / 4s/ U(N))	**20 A**
RLA (rated load amps / 1s/ U(N))	**3.7 A**
Cut in current (U(N))	**20 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
fan 1,5m/s

Electrical Accessories / Wiring Diagram



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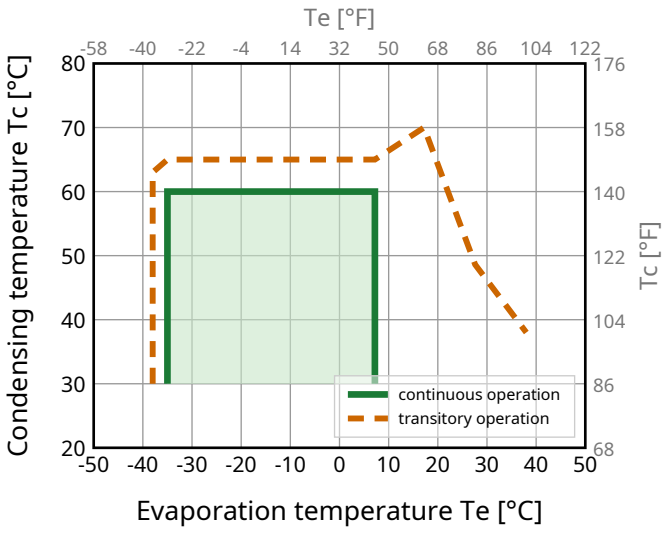
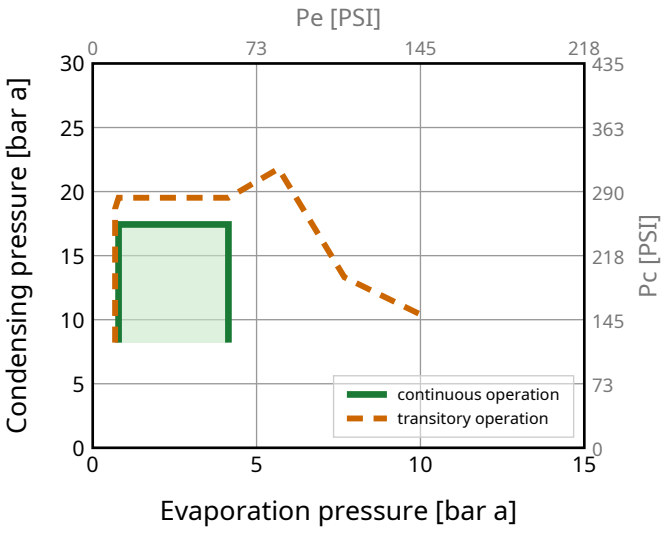
Components
a2 relay (protector: TI MRP56EN-6) 117U4139
c start capacitor 117U5018
b plastic cover + clamp 117U1021
d/dc cord relief 117U0349

Alternative components
a2 relay (protector: TI MRP56EN-6) 117U4139
d cord relief 117U0317

Operation Pressure Range





Model Sales code:

NF10FX Configuration 2 **105G6846**

Standard Conditions

R513A, 220 V/50 Hz, CSIR, fan 1,5m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**293**	1000	252	**0.95**	3.23	309	2.77	6.42	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**211**	720	181	**0.71**	2.42	298	2.75	5.84	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**153**	521	131	**0.65**	2.22	234	2.62	3.84	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**581**	1983	500	**1.40**	4.77	416	2.98	14.49	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**448**	1528	385	**1.14**	3.88	394	2.94	12.56	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**498**	1700	428	**1.31**	4.46	381	2.91	13.49	**EN12900 MBP**

Performance Tables

R513A, 220 V/50 Hz, CSIR, fan 1,5m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	**144**	491	124	**0.60**	2.05	239	2.63	3.54
-30	-22	**192**	655	165	**0.72**	2.46	266	2.68	4.73
-20	-4	**327**	1115	281	**1.01**	3.45	324	2.80	8.11
-10	14	**523**	1783	450	**1.37**	4.68	381	2.91	13.08
0	32	**791**	2700	681	**1.81**	6.18	437	3.02	20.05
7.2	45	**1036**	3536	891	**2.19**	7.46	474	3.10	26.55

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-35	-31	**116**	396	100	**0.49**	1.66	238	2.63	3.19
-30	-22	**158**	540	136	**0.59**	2.02	267	2.69	4.37
-20	-4	**276**	941	237	**0.84**	2.86	329	2.81	7.67
-10	14	**448**	1528	385	**1.14**	3.88	394	2.94	12.56
0	32	**685**	2338	589	**1.49**	5.09	459	3.07	19.48
7.2	45	**903**	3081	777	**1.79**	6.11	504	3.16	26.01

Model
NF10FX Configuration 3

Sales code:
105G6846

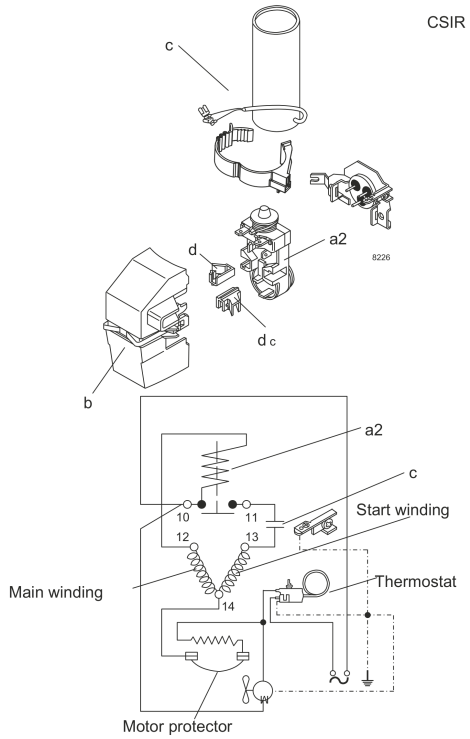
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R134a**
Application	**LBP+MBP**
Voltage range	**198-242 V**
Starting torque	**HST**
Approvals	**UL, VDE, CCC, EAC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**125 µF**
LRA (locked rotor amps / 4s/ U(N))	**20 A**
RLA (rated load amps / 1s/ U(N))	**3.7 A**
Cut in current (U(N))	**20 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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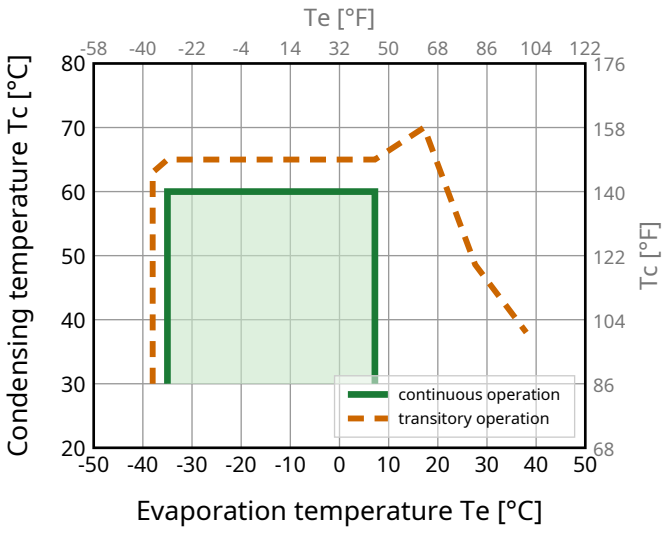
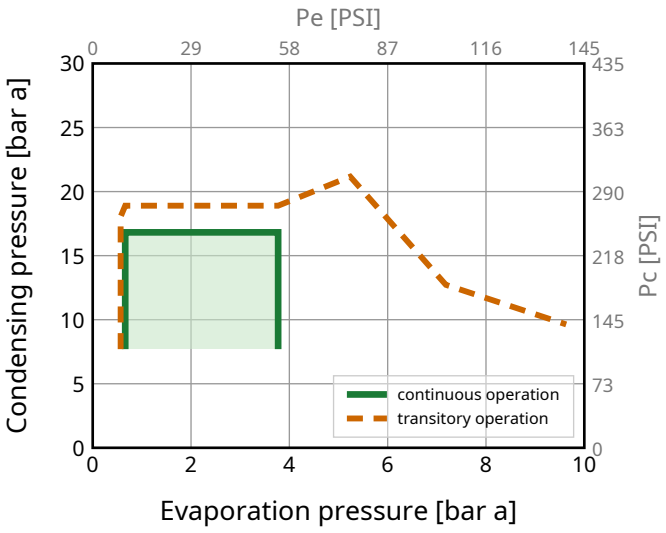
Components
a2 relay (protector: TI MRP56EN-6) 117U4139
c start capacitor 117U5018
b plastic cover + clamp 117U1021
d/dc cord relief 117U0349

Alternative components
a2 relay (protector: TI MRP56EN-6) 117U4139
d cord relief 117U0317

Operation Pressure Range





Model
NF10FX Configuration 3

Sales code:
105G6846

Standard Conditions

R134a, 230 V/60 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**299**	1020	257	**1.14**	3.89	262	1.86	5.80	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**223**	761	192	**0.89**	3.03	251	1.82	5.32	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**158**	538	136	**0.92**	3.15	171	1.67	3.45	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**583**	1990	502	**1.53**	5.22	381	2.27	12.70	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**456**	1555	392	**1.28**	4.36	357	2.18	10.99	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**506**	1726	435	**1.49**	5.07	340	2.12	11.80	**EN12900 MBP**

Performance Tables

R134a, 230 V/60 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	**145**	494	125	**0.83**	2.83	175	1.66	3.12
-30	-22	**195**	664	167	**0.92**	3.15	211	1.73	4.20
-20	-4	**326**	1113	281	**1.18**	4.02	277	1.91	7.08
-10	14	**524**	1788	451	**1.54**	5.25	340	2.12	11.44
0	32	**816**	2783	702	**2.00**	6.81	408	2.36	18.00
7.2	45	**1100**	3753	946	**2.37**	8.07	465	2.56	24.51

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-35	-31	**122**	416	105	**0.67**	2.28	183	1.62	2.89
-30	-22	**170**	578	146	**0.78**	2.66	217	1.72	4.03
-20	-4	**286**	977	246	**1.00**	3.43	285	1.93	6.85
-10	14	**456**	1555	392	**1.28**	4.36	357	2.18	10.99
0	32	**706**	2409	607	**1.61**	5.48	439	2.47	17.21
7.2	45	**952**	3248	819	**1.87**	6.37	510	2.69	23.46

Model
NF10FX Configuration 4

Sales code:
105G6846

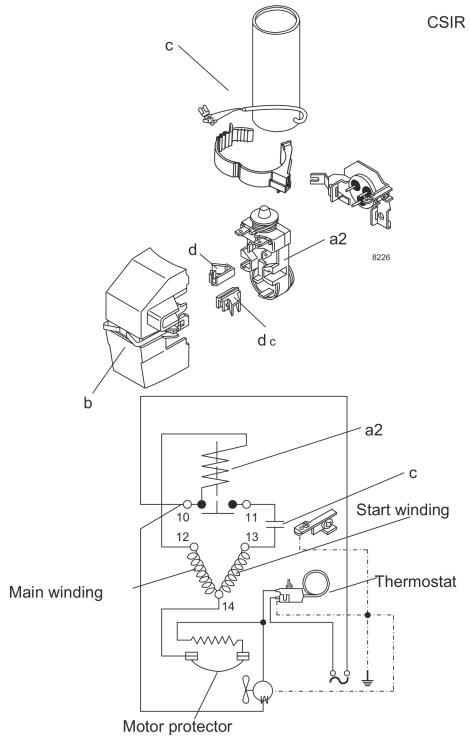
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R513A**
Application	**LBP+MBP**
Voltage range	**198-242 V**
Starting torque	**HST**
Approvals	**UL, VDE, CCC, EAC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**125 µF**
LRA (locked rotor amps / 4s/ U(N))	**20 A**
RLA (rated load amps / 1s/ U(N))	**3.7 A**
Cut in current (U(N))	**20 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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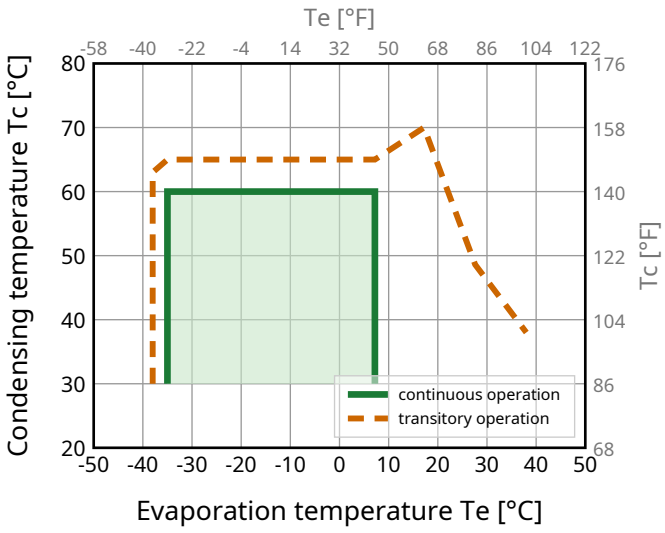
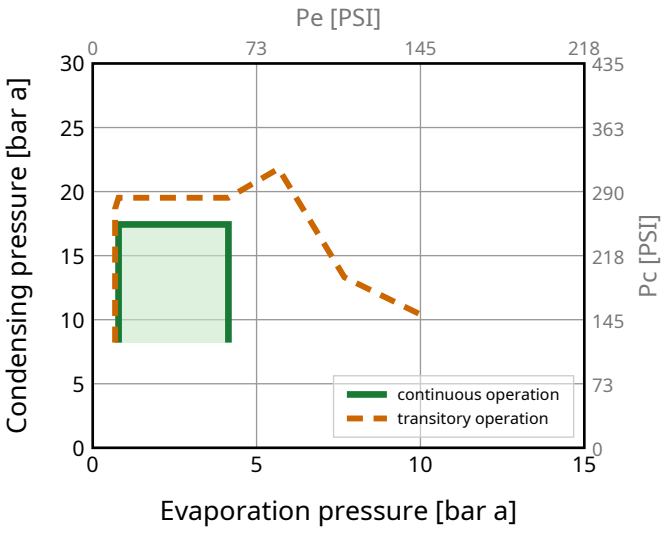
Components
a2 relay (protector: TI MRP56EN-6) 117U4139
c start capacitor 117U5018
b plastic cover + clamp 117U1021
d/dc cord relief 117U0349

Alternative components
a2 relay (protector: TI MRP56EN-6) 117U4139
d cord relief 117U0317

Operation Pressure Range





Model
NF10FX Configuration 4

Sales code:
105G6846

Standard Conditions

R513A, 230 V/60 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**329**	1122	283	**1.15**	3.92	287	1.95	7.20	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**240**	818	206	**0.87**	2.97	276	1.91	6.64	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**176**	601	151	**0.93**	3.17	190	1.63	4.42	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**611**	2085	525	**1.50**	5.14	406	2.34	15.23	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**472**	1611	406	**1.24**	4.22	381	2.26	13.25	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**526**	1793	452	**1.45**	4.94	363	2.20	14.23	**EN12900 MBP**

Performance Tables

R513A, 230 V/60 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	**164**	558	141	**0.84**	2.87	195	1.64	4.03
-30	-22	**215**	733	185	**0.93**	3.16	232	1.77	5.30
-20	-4	**350**	1195	301	**1.17**	3.99	299	1.99	8.69
-10	14	**551**	1881	474	**1.52**	5.18	363	2.20	13.80
0	32	**845**	2884	727	**1.96**	6.68	432	2.43	21.41
7.2	45	**1129**	3852	971	**2.31**	7.90	488	2.61	28.93

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-35	-31	**138**	469	118	**0.67**	2.28	206	1.68	3.79
-30	-22	**186**	633	160	**0.77**	2.62	241	1.80	5.12
-20	-4	**303**	1035	261	**0.98**	3.34	310	2.02	8.43
-10	14	**472**	1611	406	**1.24**	4.22	381	2.26	13.25
0	32	**719**	2454	619	**1.55**	5.28	465	2.54	20.45
7.2	45	**960**	3277	826	**1.79**	6.11	536	2.77	27.66